

[Title of Document]      Claims

1. A method for manufacturing a rotary member of a torque converter, the rotary member including a turbine shell of the torque converter, a plurality of blades fixed to an inner face of the turbine shell, and a driven plate of a lock-up device fixed to an outer face of the turbine shell, the method including:

a first step of fixing the driven plate to the turbine shell;

a second step of heating the turbine shell and the blades so as to fix the blades to the turbine shell by brazing; and

a third step of rapidly cooling the rotary member after the second step.

2. A method for manufacturing a rotary member of a torque converter according to claim 1, wherein in the third step the rotary member is rapidly cooled immediately after the rotary member is cooled down to a certain temperature in the second step.

3. A method for manufacturing a rotary member of a torque converter according to claim 1 or 2, wherein in the second step the brazing is performed by heating such that a temperature of the rotary member reaches at least a melting point of the brazing material used for brazing, and

in the third step, the rotary member is rapidly cooled when the temperature of the rotary member reaches an appropriate hardening temperature of the driven plate in the second step.

4. A method for manufacturing a rotary member of a torque converter according to claim 3, wherein in the third step the rotary member is cooled down to the appropriate hardening temperature or a mechanical melting temperature while keeping the temperature distribution of the

rotary member within 100 degrees Celsius.

5. A method for manufacturing a rotary member of a torque converter according to any of claims 1 to 4, wherein the turbine shell and the blades are made of ultra low-carbon steel.

6. A rotary member of a torque converter manufactured by the method according to any of claims 1 to 5.